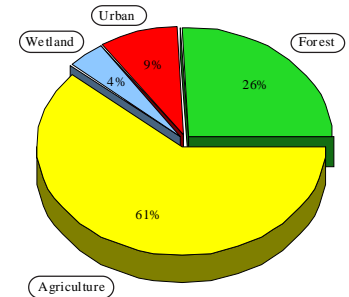




# Chester River Basin

## Current Status of Wadeable Streams

### Land Use in the Basin



Land use in the Chester River basin remains mostly rural. The basin covers an area of 718 square miles with a population density of 72 people per square mile, a lower density than most other drainage basins in Maryland. Much of the development occurring in the basin is along the Route 50/301 corridor.

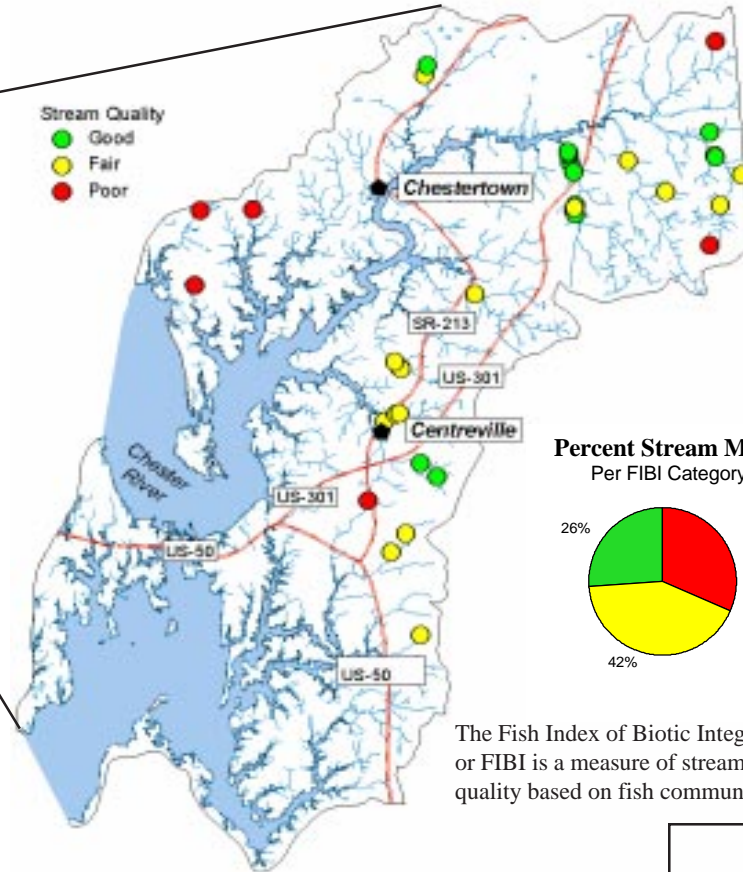


### Where is the Chester River basin?

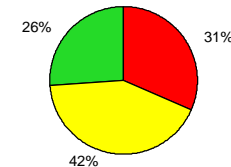
The Chester River Basin is located within portions of Queen Anne's, Talbot, and Kent counties, Maryland. A small portion of the basin is in Kent and New Castle counties, Delaware. The basin includes the Chester, Corsica, Miles, and Wye rivers and Southeast Creek.



Ever since John Smith explored the region in 1608, it has attracted settlers because of its fish-filled waters and fertile farmland. The scenic Wye River is pictured above.



Percent Stream Miles Per FIBI Category



The Fish Index of Biotic Integrity or FIBI is a measure of stream quality based on fish communities.

### What Lives in Our Streams?

Estimated Fish Abundance:	1.9 million
Number of Fish Species:	37
Number of Gamefish Species:	2
Number of Reptile and Amphibian Species:	12
Number of Freshwater Mussel Species:	6

\* Based on collections of the Maryland Biological Stream Survey in wadeable streams basin-wide during 1995.

### Water Quality

**Oxygen** - 48% of the streams in the basin had oxygen levels below the state water quality standard of 5 mg/L.



**Nitrate** - 60% of the streams had nitrate levels that may affect aquatic life (>1 mg/L). The main sources of nitrates are farm fertilizers and acid rain.



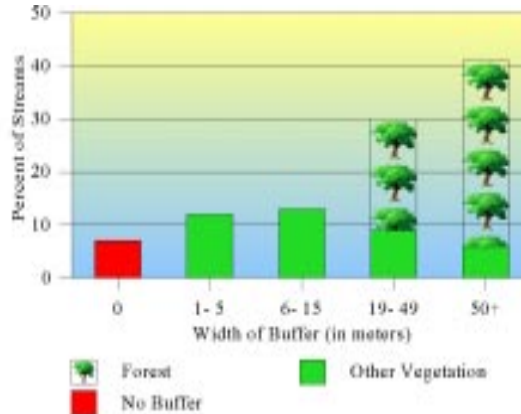
**Buffering Capacity** - Only 5% of the streams are poorly buffered against acid rain. About 80% of the streams are not affected by acid rain.



Good (Green) Fair (Yellow) Poor (Red)

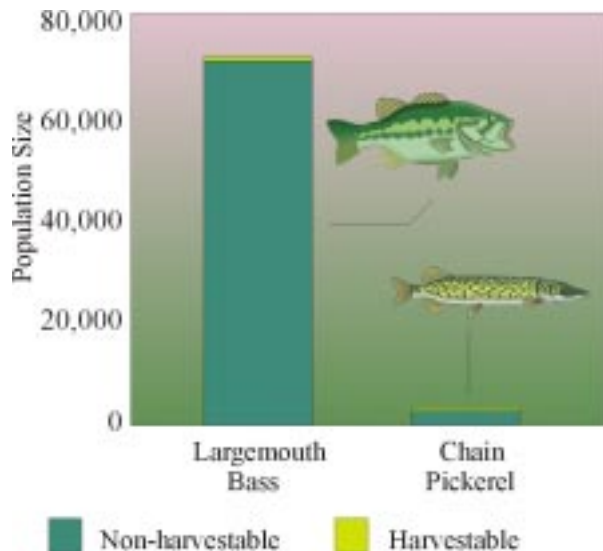
## Riparian Zone


Trees, shrubs, and grasses that border a stream are called the stream's *riparian buffer*. This buffer zone can protect a stream against runoff, provides shade, stabilizes stream banks, and supplies food and shelter for aquatic life. A wide and intact buffer offers more protection than a narrow one. Riparian buffers in the Chester River basin are in generally good condition. We can help maintain these buffers by protecting streamside forests and planting trees in disturbed areas.




## Gamefish

Two gamefish species were collected in the Chester River basin. Although adults of both species were found in the basin, most were not of legal size. Small tributary streams in the basin appear to serve as a nursery for gamefish.





### DID YOU KNOW???



- The largest white oak in North America is found in the Wye Oak State Park, in the southern portion of this basin.
- The opening of the Chesapeake Bay Bridge in 1952 brought many changes to the basin, primarily in the development of commercial and residential land. These changes include the decline of forests and wetlands.
- Eastern Neck Island Wildlife Refuge, in the south central portion of the basin, is used as a wintering ground for geese. The winter population of over 100,000 is the largest in any basin of the state.
- After a decline in the oyster population in the lower Chester River in 1970, commercial harvesters now depend on 'planting'




*The swamp darter, uncommon in Maryland, is found in the Chester River basin.*

### Community Involvement

Want to help? These community groups can show you how!

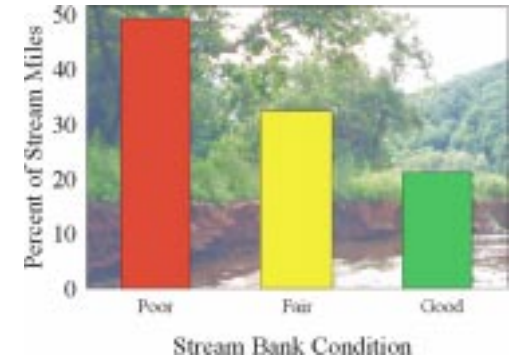
Alliance for the Chesapeake Bay  
6600 York Road, Suite 100  
Baltimore, MD 21212  
Kathleen Millan (410) 377-7144

Chester River Association  
359 High Street  
Chestertown, MD 21620  
Pat Nielson (410) 758-1351



## Stream Bank Stability

Eroded, unstable banks reduce habitat quality in streams and contribute to water quality problems in downstream areas. On average, the stability of stream banks in the Chester River basin is fair to poor. As lands within the basin were developed for agriculture and later urbanized, many miles of stream banks became highly eroded. Since the streams in this basin flow into the Chesapeake, this bank instability causes an increase in downstream transport of nutrients and suspended sediments to the Bay.



## Recreation

The Eastern Neck National Wildlife Refuge, Turners Creek Park, Worton Park, and Edesville Community Park provide recreational areas for residents and visitors. Activities include hiking, hunting, fishing, trapping, picnicking, canoeing, camping, swimming, boating, and nature observations.



*Charter boats on the Wye River allow residents and visitors alike a chance to enjoy the river without the expense of maintaining a boat themselves.*

For more detailed information on streams in the Chester basin and elsewhere in Maryland, contact Ann Smith of DNR/MANTA at (410) 260-8611, email [asmith@dnr.state.md.us](mailto:asmith@dnr.state.md.us), or check out the DNR web site at [www.dnr.state.md.us/Bays/waterqual/mbss/mbss.html](http://www.dnr.state.md.us/Bays/waterqual/mbss/mbss.html).